

REQUEST FOR RECONSIDERATION

Claims 1-8 remain active in this application.

The claimed invention is directed to a coffee composition, a soluble coffee composition, a packaged beverage filled with a coffee composition and methods for preparing same, comprising 0 to 0.00005 wt.% of hydroxyhydroquinone (HHQ) (claims 1, 3, 4 and 6-8) or no substantial HPLC peak where HHQ would be detected (claims 2, 5 and 6-7).

Coffee compositions are consumed around the world. While it has been recognized that hydrogen peroxide is a component of roasted coffee, method of removal have not been effective at reducing *in vivo* hydrogen peroxide levels. Applicants have discovered that HHQ has an effect of generating hydrogen peroxide *in vivo* and that a coffee composition from which an HHQ content has been reduced does not accelerate the production of hydrogen peroxide *in vivo*. Such a coffee composition is nowhere disclosed or suggested in the cited art of record.

The rejections of claims 1, 2, 6 and 7 under 35 U.S.C. §103(a) over Stelkens GB 354,942 and Sosuke et al JP 6-315,434, of claims 3 and 8 under 35 U.S.C. §103(a) in further view of Schlichter U.S. 3,615,666 and of claims 4 and 5 under 35 U.S.C. §103(a) in further view of Behrman U.S. 2,430,663 are respectfully traversed.

None of the cited references disclose or suggest a composition comprising 0 to 0.00005 wt.% HHQ or no substantial HPLC peak corresponding to a HHQ retention time.

Stelkens has been cited for a disclosure of treatment of infusions of tea and coffee with activated carbon such that caffeine and other distasteful constituents are adsorbed (page 1, lines 74-84). Treatment with activated carbon results in a decrease in the **total nitrogenous content** (43% reduction) of the coffee infusion (page 2, lines 16-20). There is no express disclosure of removal of HHQ. HHQ is not a nitrogenous compound. Applicants

have previously provided evidence that the use of zinc chloride treated activated carbon of an average particles size of 0.2-0.4 mm does not inherently provide an HHQ content as claimed.

JP '434 has been cited for a disclosure of filtering coffee through adsorbents such as activated carbon. The reference report the use of adsorbent for "polymeric brownish black ingredients." There is no disclosure to remove HHQ in the reference, but rather that polymeric brownish black ingredients are removed. The office had previously reasoned that there would be motivation to filter coffee with the adsorbent of JP '434 until a desired level/removal of poisonous substance is obtained.

Not withstanding applicants prior evidence using the filtration conditions of JP '434, applicants have conducted additional testing as suggested by the examiner. As evidence that removal of HHQ to within the claimed range is not inherent to the combined disclosures of Sosuke (JP '434) with Stelkens, applicants enclose herewith the third declaration of Mr. Hideo Ohminami¹, a named inventor of the above-identified application. Using the treatment conditions of Stekens and a coconut husk 1-5 Angstrom of pore size similar to that disclosed in JP '434 Mr. Ohminami prepared coffee compositions by intimate contact for **a period of five minutes**. This **contact time is the same** as disclosed in Stelkens using the **same proportions** as described in Stelkens. The data is summarized below:

	Without activated carbon (reference)	With activated carbon
Content of HHQ	0.00399 wt%	0.00227 wt%
HHQ residual ratio	100 %	56.9 %
Content of chlorogenic acid	0.72271 wt%	0.51385 wt%
Chlorogenic acid residual ratio	100 %	71.1 %
Ratio of HHQ / chlorogenic acid	0.55 %	0.44 %

¹ Applicants note that Mr. Ohminami name may also be spelled Oominami, as it appears on this 1.53 declaration.

Using the same contacting conditions of five minutes and proportions as described by Stelkens and using a coconut husk activated carbon similar to that disclosed in Sosuke, the combination as proposed by the examiner, an HHQ content as claimed is not realized. Furthermore, there was a detectable HPLC peak corresponding with an HHQ retention time. Using the conditions described by the examiner, an HHQ content which is more than 45x greater than the claimed maximum is realized. Accordingly, the claimed coffee composition containing from 0-0.00005 wt. % of HHQ is not obvious.

While pages 5-6 of the official action suggest that through aggressive dilution an HHQ content as claimed could be obtained, applicants note that the claims are directed to a coffee composition, which would be understood to those of ordinary skill in the art to be a drinkable coffee composition. As the processing suggested by the examiner produced a coffee composition having an HHQ content more than 45x the claimed maximum, in order to decrease the HHQ concentration of the coffee composition containing 0.00227 wt. % of HHQ, it would be necessary to dilute the HHQ and **the remaining coffee components** more than 45x. At that point, while an HHQ content as claimed could be obtained, such a diluted liquid would cease to be a coffee composition as the concentration of components recognized as regular coffee components would be so dilute as to no longer be considered a coffee composition. Quite simply the cited art fails to suggest a **coffee composition** having an HHQ content of from 0 to 0.00005 wt. %.

Since an HHQ content as claimed is not inherent to the extraction procedure of Stelkens using an activated carbon similar to JP '434, the claimed invention is not rendered obvious over this reference and accordingly withdrawal of the rejections under 35 U.S.C. §103 (a) is respectfully requested.

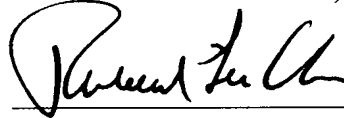
The basic deficiencies of the primary references are not cured by the secondary references as none of the secondary references disclose or suggest a process which would result in an HHQ content, as claimed.

Since the cited references fail to suggest removal of HHQ to a content as claimed, the claimed invention would not have been obvious and accordingly, withdrawal of the rejections under 35 U.S.C. §103(a) is respectfully requested.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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